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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,689	08/11/2005	Jan-Erik Nilsskog	1004475.001US (4747-4000)	9868
85775 7590 03/31/2010 Locke Lord Bissell & Liddell LLP Attn: IP Docketing Three World Financial Center New York, NY 10281-2101				
EXAMINER				
KHARE, ATUL P				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
03/31/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptopatentcommunication@lockelord.com

Office Action Summary

Application No.

10/520,689

Applicant(s)

NILSSKOG ET AL.

Examiner

ATUL KHARE

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI.08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 February 2100 has been entered.

Response to Amendment

2. The amendment filed 24 February 2010 has been entered and fully considered.
3. Claims 1, 2, and 8-24 are currently pending. Claims 3-7 and 25 have been canceled.
4. No new matter has been found.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2, and 8-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. As to claims 1, 13, and 17, the following active process steps are critical or essential to the practice of the invention but are not recited in the claims: 1) assembling a form by attaching a studded plate as a liner, 2) casting concrete into the form having the studded plate liner, 3) removing the studded plate and form from the first cast concrete section prior to casting a second concrete section, and 4) casting a second concrete section. See MPEP 2172.01. These steps appear to be the minimum essential steps required to practice the claimed method.

8. Claims 1, 13, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps. See MPEP § 2172.01. The omitted steps are: 1) assembling a form by attaching a studded plate as a liner, 2) casting concrete into the form having the studded plate liner, 3) removing the studded plate and form from the first cast concrete section prior to casting a second concrete section, and 4) casting a second concrete section. It is axiomatic that method claims are defined by their steps, and these claims do not recite any process steps.

9. Claim 8 recites the limitation "a method according to claim 7" in line 1 of the claim. Since claim 7 has been cancelled, this claim is indefinite. For examination, the limitation will be interpreted to depend on claim 1.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1, 2, 12, 15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackburn (US 3,802,790).

14. As to claims 1 and 12, Blackburn teaches in a method for producing pavement-like structures: pressing a former into a concrete base and casting a second concrete section onto the patterned concrete base (column 1 lines 60-65, column 6 lines 23-50). This method can be used to make a variety of concrete structures on site (column 1 line 66 to column 2 line 33). The former can be removed prior to casting the second concrete section (abstract, column 1 lines 55-56). The second concrete section meets the first concrete section at a concrete joint. The former is a studded plate having backs or bridges between square studs positioned laterally/longitudinally in relation to each other in a pattern (figures 8-9). (Note: the claims do not specify that a lateral direction is different than a longitudinal direction.) The studs appear to have a stud side wall inclination angle greater than 60° (figures 8-9). In the alternative that the studs do not have the required inclination angle, it would have been obvious to substitute the required inclination angle with the inclination angle of the studs in the plate of Blackburn because the studs can be of any size, shape, depth, or relative spacing (column 6 lines 37-38). (Note: the claims do not specify that the inclination angle is with respect to the surface of the studded plate.)

15. As to claims 2 and 15, Blackburn does not appear to explicitly disclose the height or distance between the studs. However, it would have been obvious to create a studded plate with stud heights and distances that meet the required ranges because the studs can be of any size, shape, depth, or relative spacing (column 6 lines 37-38).

16. As to claims 18-20, Blackburn teaches the use of a studded plate that has studs positioned in relation to one another in a square diamond or polygonal pattern (figure 9).

Additionally, in a 3x4 block of studs, a hexagonal positioning pattern is present between the two center studs in rows 1 and 3 and the two outer studs in row 2.

17. Claims 8, 10, 11, and 13-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackburn (US 3,802,790) as applied to claims 1, 2, 12, 15, and 18-20 above, and further in view of Shoe (US 3,767,154).

18. As to claims 8, 10, and 11, Blackburn does not appear to explicitly disclose using the studded plate to pattern concrete joints of large concrete components. However, patterning concrete joints in large concrete components is an intended use that could be met by the use of the method and studded plate of Blackburn (MPEP 2111.02).

Additionally, Shoe teaches in a method for making concrete slabs: using a composite form to create a patterned surface between concrete slabs so that the separate units of finished concrete product interlock with one another (abstract, column 1 lines 9-15, column 7). According to MPEP 2111.02, if a prior art structure meets the intended use of a claim, the claim is met (claims 10, 11). The combined method of Blackburn and Shoe could be used to pattern concrete joints of large concrete structures such as in a bridge or a box wall on a free balanced cantilever to create the required pattern in a direction parallel to or square to the direction of the primary shear (claims 8, 10, 11). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to subsequently use the Blackburn form to form slabs according to the Shoe process because (a) Blackburn suggests that the formers be used to produce cavities in slabs (column 7, lines 20-22), and the Shoe process is directed to casting of slabs, or

(b) one would have recognized the interlocking pattern provided by the Blackburn former as an interchangeable substitute for the pattern provided on the Shoe forms.

19. As to claims 13, 17, and 21-24, Blackburn teaches in a method for producing pavement-like structures: pressing a former into a concrete base and casting a second concrete section onto the patterned concrete base (column 1 lines 60-65, column 6 lines 23-50). This method can be used to make a variety of concrete structures on site (column 1 line 66 to column 2 line 33). The former can be removed prior to casting the second concrete section (abstract, column 1 lines 55-56). The second concrete section meets the first concrete section at a concrete joint. The former is a studded plate having backs or bridges between square studs positioned laterally/longitudinally in relation to each other in a pattern (figures 8-9). (Note: the claims do not specify that a lateral direction is different than a longitudinal direction.) The studs appear to have a stud side wall inclination angle greater than 60° (figures 8-9). In the alternative that the studs do not have the required inclination angle, it would have been obvious to substitute the required inclination angle with the inclination angle of the studs in the plate of Blackburn because the studs can be of any size, shape, depth, or relative spacing (column 6 lines 37-38). (Note: the claims do not specify that the inclination angle is with respect to the surface of the studded plate.) Blackburn does not appear to explicitly disclose using the studded plate to pattern concrete joints of large concrete components. However, patterning concrete joints in large concrete components is an intended use that could be met by the use of the method and studded plate of Blackburn (MPEP 2111.02). Additionally, Shoe teaches in a method for making concrete slabs: using a composite

form to create a patterned surface between concrete slabs so that the separate units of the finished concrete product interlock with one another (abstract, column 1 lines 9-15). It would have been obvious to use the teaching of Shoe to improve the industrial applicability of the Blackburn method so that it further applies to creating an interlocking patterning surface between concrete slabs. According to MPEP 2111.02, if a prior art structure meets the intended use of a claim, the claim is met. The combined method of Blackburn and Shoe can be used to pattern concrete joints of large concrete structures such as in a box wall on a free balanced cantilever, a tunnel, a wall in a building, a wall of a dam, and a container.

20. As to claims 14 and 16, Blackburn does not appear to explicitly disclose the height or distance between the studs. However, it would have been obvious to optimize the stud heights and distances of Blackburn particularly in view of Blackburn's teaching that the studs can be of any size, shape, depth, or relative spacing (column 6 lines 37-38).

21. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackburn (US 3,802,790) as applied to claims 1, 2, 12, 15, and 18-20 above, and further in view of Shoe (US 3,767,154) and Schertzberg et al. (US 2002/0009566). As to claim 9, Blackburn does not appear to explicitly disclose using the studded plate to pattern concrete joints of large concrete components. However, these claims point to an intended use that could be met by the use of the method and studded plate of Blackburn (MPEP 2111.02). Additionally, Shoe teaches in a method for making

concrete slabs: using a composite form to create a patterned surface between concrete slabs so that the separate units of the finished concrete product interlock with one another (abstract, column 1 lines 9-15). It would have been obvious to use the teaching of Shoe to improve the industrial applicability of the Blackburn method so that it further applies to creating an interlocking patterning surface between concrete slabs. The combined method of Blackburn and Shoe can be used to pattern concrete joints of large concrete structures.

Further, Schertzberg teaches in a method of constructing an injection hose: embedding an injection hose in a concrete cast section in order to fill voids left in concrete joints [0004]. It would have been obvious to apply the embedded hose of Schertzberg as an improvement to the modified Blackburn method to help provide further reinforcement to the cast concrete joint.

Response to Arguments

22. Applicant's arguments with respect to claims 1, 13, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATUL KHARE whose telephone number is (571)270-7608. The examiner can normally be reached on Monday-Thursday 7:30 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ATUL KHARE/
Examiner, Art Unit 1791

/Matthew J. Daniels/
Primary Examiner, Art Unit 1791
3/26/10